

VISIT...

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EXTRACTION AND WASHING: MICROSCALE

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Instead of a sep funnel, you use a conical vial and some Pasteur pipets. First you mix your extraction solvent with your product; then you separate the two liquids.

MIXING

1. Get the material to be extracted into an appropriately sized conical vial. This vial should be at *minimum* twice the volume of the liquid you want to extract. Usually, this conical vial is the reaction vial for the experiment, so the choice is easily made (forced on you).
2. Add an appropriate solvent (**not**—repeat—**not** extracting liquid) so the volume of the mixture is about 1 ml. (What if it's about 1 ml already?)
3. Add about 1 ml of extracting solvent to the vial.
4. At this point, cap the vial and shake to mix (**Caution**—Leaks!). Better you should add a **magnetic spinning vane** and spin the two layers for a minute or so.

SEPARATION: REMOVING THE BOTTOM LAYER (FIG. 77)

1. Have an empty vial ready.
2. Pre-wet a Pasteur pipet and bulb combo with the extraction solvent. (See Chapter 7, "Pipet Tips.")
3. Squeeze the bulb.
4. Stick the pipet into the vial down to the bottom.
5. Slowly—read that word again—slowly, draw the bottom layer up into the pipet. Get it all now. (Actually, you could do this a few times if necessary.) And don't suck any liquid **into** the rubber bulb!
6. Squirt the bottom layer into an empty vial.

SEPARATION: REMOVING THE TOP LAYER (FIG. 78)

1. Have an empty vial ready.
2. Pre-wet a Pasteur pipet and bulb combo with the extraction solvent. (See Chapter 7, "Pipet Tips.")
3. Really squeeze the bulb.

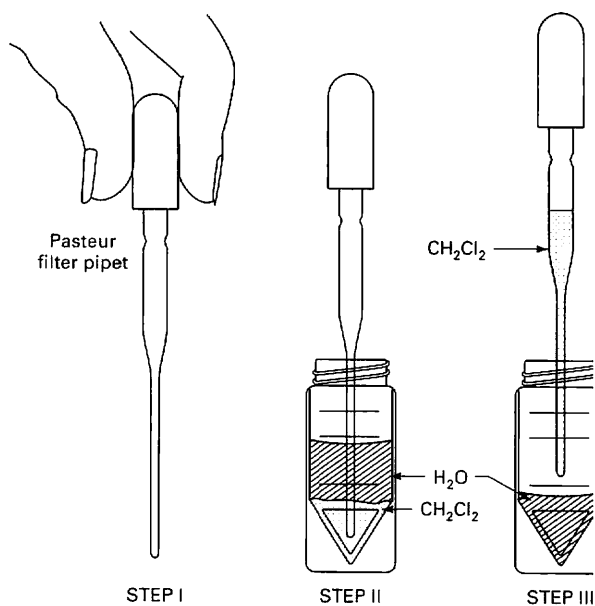


Fig. 77 Pipet removes bottom layer.

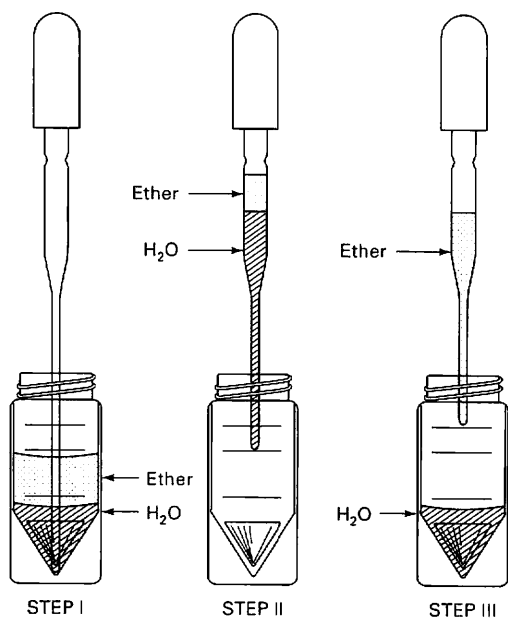


Fig. 78 Pipet removes top layer.

4. Stick the pipet into the vial down to the bottom.
5. Slowly—read that word again—slowly, draw **all**—yes **all**—both layers—into the pipet. **Don't slurp!** If you draw lots of air into the pipet *after* both layers are in there, the air bubble will mix both layers in the pipet. Even worse, because of evaporation into this new “fresh” air, vapor pressure buildup can make both layers fly out back into the vial, onto the benchtop, on your hands, wherever. And don't suck any of this **into** the rubber bulb!
6. Squeeze the bulb to put the *bottom* layer back into the original vial.
7. Squirt the top layer into an empty vial.